

Remarks

The Applicants have amended Claim 1 to recite that the filaments “contain substantially no plasticizer.” Support for this amendment may be found throughout the Applicants’ Specification such as in paragraph [0048] on page 15, paragraph [0052] on page 16, paragraphs [0054] and [0055] on page 17, paragraph [0056] on page 18 as well as in Example 1 as set forth in paragraph [0074] and Table 1 on page 32. The Applicants have accordingly cancelled Claim 5.

The Applicants have also cancelled Claims 8-15 without prejudice and without disclaimer of the subject matter therein. The Applicants specifically reserve the right to file one or more divisional applications directed to the subject matter contained within those claims.

Entry of the above amendments and cancellations into the official file is respectfully requested. The Applicants note that the cancellation of claims removes issues for further consideration and the change to Claim 1 directly addresses issues raised in the previous Response and in the extant Official Action. Thus, consideration on the merits is respectfully requested.

Claims 1-3 and 5-7 stand rejected under 35 USC §102 as being anticipated by or under 35 USC §103 as obvious over Aranishi. The Applicants respectfully submit that the rejection is now moot with respect to cancelled Claim 5. The Applicants note with appreciation the Examiner’s detailed comments hypothetically applying Aranishi against Claims 1-3 and 6-7. The Applicants nonetheless respectfully submit that Aranishi is inapplicable under both §102 and §103. Reasons are set forth below.

The fibers produced by Aranishi are melt-spun fibers comprising a mixture of a thermoplastic mixed cellulose ester and a plasticizer. The thermoplastic mixed cellulose ester

may be, among others, cellulose acetate propionate. Those melt-spun fibers comprising a thermoplastic mixed cellulose ester and a plasticizer have physical characteristics brought about by the presence of both of those components as well as the method in which the melt-spun fibers are made.

The Aranishi fibers and their physical characteristics are, however, different from the Applicants' claimed filament. That is because the Applicants' filaments are substantially free of plasticizer or, said differently, contain substantially no plasticizer. The Applicants' filaments are formed by a method wherein plasticizer is added to the cellulose acetate propionate prior to forming the filaments. However, substantially all of the plasticizer is removed from the filaments after their formation. In that regard, the Applicants note that it is their intention to remove the plasticizer after formation of the filaments. However, having added the plasticizer and then forming the filaments, it is possible that trace amounts of the plasticizer might remain in some instances. Hence, the Applicants utilize the term "substantially" to account for the possibility of the existence of such trace amounts of plasticizers. There is in any event no meaningful amount of plasticizer remaining in the Applicants' filament.

This is an important difference because it causes differences in the physical characteristics. This can be seen by referring to the Examples and Comparative Examples in the Applicants' Specification. Table 1 of the Applicants' Specification on page 32 is particularly instructive. Specifically, the Applicants invite the Examiner's attention to Example 1 and Comparative Example 1. The polymer used in each instance is the same. The substitution degree in each instance is the same and the total molecular weight of the constituents is the same. However, in Example 1, the plasticizer was removed from the filament. In sharp contrast, Comparative Example 1 did not remove the plasticizer. This results in filaments having different

physical characteristics in a number of categories. For example, the initial tensile modulus is quite different between Example 1 and Comparative Example 1. Example 1 has an initial tensile modulus of 35 while the filament of Comparative Example 1 has an initial tensile modulus of 18. That initial tensile modulus is thus about half of the filament of Example 1.

Another major difference which is specifically claimed in Claim 1 is the difference in the glass transition temperature (T_g). The filament of Example 1 has a T_g of 185°C, while filament of Comparative Example 1 has a T_g of 115°C. Thus, those skilled in the art can readily see that there are large differences between the filaments that are substantially free of plasticizer versus those that contain substantial amounts of plasticizer.

As a consequence, the Applicants respectfully submit that Aranishi fails to explicitly, implicitly or inherently anticipate the Applicants' claimed filaments as recited in Claims 1-3 and 6-7. Moreover, the Applicants respectfully submit that Aranishi is inapplicable under §103 as well. There is no disclosure and there are no teachings and no suggestions in Aranishi to remove the plasticizer. In fact, Aranishi teaches just the opposite. Aranishi specifies that the plasticizer is indeed contained within the Aranishi fibers in specified amounts. Moreover, the Applicants respectfully submit that one skilled in the art would have no reasonable expectation that various of the physical characteristics would be different between the fibers of Aranishi and the Applicants' claimed filaments. In particular, there is no disclosure, teaching or suggestion in Aranishi that the glass transition temperature as recited in the Applicants' claim would be so different. That difference is 70°C between Example 1 and Comparative Example 1, which represents a more than 50% increase in glass transition temperature. This simply would not be expected by those skilled in the art based on the mere difference of the inclusion or substantial exclusion of the plasticizer. Withdrawal of the rejection is accordingly respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



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